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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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David Jau Young Lee

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EXAMINER

RYMAN, DANIEL J

ART UNIT

PAPER NUMBER

2665

DATE MAILED: 04/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/589,974

Applicant(s)

LEE ET AL.

Examiner

Daniel J. Ryman

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 February 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- 1) ☐ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-12 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1, 2, 5, 6, and 9-12 are rejected under 35 U.S.C. 102(e) as being anticipated by La Porta et al. (USPN 6,654,359).
4. Regarding claims 1 and 12, La Porta discloses that each base station has router functionality that can be accomplished with separate router and base station components interfaced appropriately (col. 5, lines 27-36). Thus, La Porta discloses an internet protocol-based cellular telephone communications system, comprising: a router (col. 5, lines 27-36 and col. 7, line 60-col. 8, line 41); a base transceiver station (BTS), coupled to the router, for communicating with a mobile telephone within a transmission area associated with the base transceiver station, wherein the router communicates with the BTS using a cellular network interface (col. 5, lines 27-36) where the "cellular network interface" is the interface between the base station and the router. La Porta also discloses a foreign agent (FA), coupled to the router (col. 33, line 51-col. 34, line 35) where "coupled" can include indirect coupling; and a home

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agent (HA), coupled to the router, wherein the home agent communicates with the router and the foreign agent for registering mobile telephones and transmitting messages using an internet-protocol network separate from the cellular network (col. 7, line 60-col. 9, line 15); wherein messages are transmitted using the internet protocol network between the home agent and the router, and messages are transmitted using the cellular network interface between the router and the base transceiver station (col. 2, lines 36-40; col. 5, lines 27-36; and col. 7, line 60-col. 9, line 15).

5. Regarding claim 2, La Porta discloses a second BTS, wherein a handoff between the BTS and the second BTS is performed through the internet protocol network (Figs. 14, 15, and 17; col. 7, lines 18-25; and col. 7, lines 37-41).

6. Regarding claim 5, La Porta discloses that the HA directs a message to the mobile telephone using an internet protocol address (col. 7, line 60-col. 9, line 15 and col. 33, line 51-col. 34, line 35).

7. Regarding claim 6, La Porta discloses that each base station has handoff server (router) functionality that can be accomplished with separate router and base station components interfaced appropriately (col. 5, lines 27-36). Thus, La Porta discloses an internet protocol-based cellular telephone communications system, comprising: a handoff server (HS) (router) (col. 5, lines 27-36 and col. 7, line 60-col. 8, line 41); a base transceiver station (BTS), coupled to the handoff server, for communicating with a mobile telephone within a transmission area associated with the base transceiver station, wherein the handoff server communicates with the base transceiver station using a cellular network interface (col. 5, lines 27-36) where the "cellular network interface" is the interface between the base station and the router. La Porta also

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discloses a home agent (HA), coupled to the handoff server, wherein the home agent communicates with the handoff server for transmitting messages using an internet-protocol network separate from the cellular network (col. 7, line 60-col. 9, line 15); wherein messages are transmitted using the internet protocol network between the home agent and the handoff server, and messages are transmitted using the cellular network interface between the handoff server and the base transceiver station (col. 2, lines 36-40; col. 5, lines 27-36; and col. 7, line 60-col. 9, line 15).

8. Regarding claim 9, La Porta discloses that a handoff of a mobile telephone between the BTS and a second BTS within the cellular telephone communications system is handled through the handoff server (Figs. 14, 15, and 17; col. 7, lines 18-25; and col. 7, lines 37-41).

9. Regarding claim 10, La Porta discloses that the mobile telephone communicates directly through the handoff server during the handoff between the BTS and the second BTS (Figs. 14, 15, and 17; col. 7, lines 18-25; and col. 7, lines 37-41).

10. Regarding claim 11, La Porta discloses that a handoff between the BTS and a second BTS is anchored through the first BTS until updates can be made at the HA (Figs. 14, 15, and 17; col. 7, lines 18-25; and col. 7, lines 37-41).

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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12. Claims 3, 4, 7, and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over La Porta et al. (USPN 6,654,359) as applied to claim 1 above, and further in view of Olkkonen (WO 98/43456).

13. Regarding claims 3 and 7, La Porta does not expressly disclose that a soft hand off (SHO) is performed between the BTS and the second BTS. Examiner takes official notice that soft hand offs are very old and well known in the art since soft hand offs reduce the probability that a connection will be dropped during hand off. It would have been obvious to one of ordinary skill in the art at the time of the invention to have the hand off be a soft hand off in order to decrease the probability that a connection will be dropped during hand off.

La Porta does not expressly disclose using asynchronous transfer mode (ATM) communications between the router and the BTS and the router and the second BTS; however, La Porta does disclose that the system can use a variety of communication methods (col. 4, line 65-col. 5, line 4). Olkkonen teaches, in a mobile communication system, using ATM to communicate within mobile network transmission systems in order to increase capacity and flexibility (pg. 2, lines 24-page 3, line 6; page 4, line 19-page 5, line 17; page 8, lines 33-35; and page 11, line 11-page 12, line 33). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to use asynchronous transfer mode (ATM) communications between the router and the BTS and the router and the second BTS in order to increase capacity and flexibility.

14. Regarding claims 4 and 8, La Porta in view of Olkkonen suggests that the SHO is performed using ATM between the BTS and the second BTS and the mobile telephone (Olkkonen: page 11, line 11-page 12, line 33).

Conclusion

15. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Bender et al (USPN 6,215,779) see entire document which pertains to a wireless data communication system. Ahopelto et al (USPN 5,970,059) see entire document which pertains to routing packets in a packet radio network. Raychaudhuri et al (USPN 5,684,791) see col. 1, lines 16-58 which pertains to using ATM to communicate between a mobile unit and a BTS. Lim (USPN 6,404,754) see entire document which pertains to connecting cellular networks using IP networks.

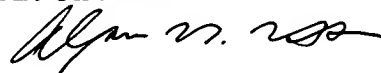
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel J. Ryman whose telephone number is (571)272-3152. The examiner can normally be reached on Mon.-Fri. 7:00-4:30 with every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy Vu can be reached on (571)272-3155. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DR

Daniel J. Ryman
Examiner
Art Unit 2665



ALPUS H. HSU
PRIMARY EXAMINER